

REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendment and the following remarks.

Claims 1-14 were pending in this application. In this Amendment, Applicants have canceled claim 9 without prejudice, have amended claims 1, 3, 5, 8, and 10-12, and have added new claims 15-21. Accordingly, claims 1-8 and 10-21 will be pending herein upon entry of this Amendment.

In the Office Action mailed July 13, 2005, claim 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,996,135 to Roy ("Roy"). Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Roy in view of U.S. Patent No. 5,841,443 to Einkauf ("Einkauf"). Claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Roy in view of U.S. Patent No. 6,674,849 to Froeberg ("Froeberg"). Claims 1, 3, 5 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Roy in view of U.S. Patent No. 4,870,576 to Tornetta ("Tornetta"). Claims 2, 13, and 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Roy in view of Tornetta and Official Notice. Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Roy in view of Tornetta and U.S. Patent No. 5,185,857 to Rozmanith ("Rozmanith"). Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Roy in view of Tornetta in view of U.S. Patent No. 5,978,804 to Dietzman ("Dietzman"). Claim 7 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Roy in view of Tornetta and U.S. Patent No. 4,635,136 to Ciampa ("Ciampa"). To the extent these rejections might still be applied to claims presently pending in this application, Applicants respectfully traverse the rejections.

The Examiner cited Roy as disclosing the spatial indexing feature recited in claim 8. However, Roy merely refers to a method for using a general “spatial technique” (not spatial *indexing*) of enclosing multiple objects within a circle or polygon (column 3, lines 46-51), and a map window information stream 310 that includes latitude and longitude coordinate information (column 5, lines 58-63 and column 14, lines 13-15). To clarify the spatial indexing feature of the present invention as distinguishable over Roy, Applicants have amended claim 1 and 8.

Specifically, amended claim 1 recites a process in which a bounded polygonal search area is subdivided into latitude/longitude sub-boxes, which are identified as one of inside, outside, and intersecting. The subdividing and identifying continue up to a predefined number of iterations, resulting in identified inside sub-boxes and remaining intersecting sub-boxes. The process then searches for properties within the inside sub-boxes and intersecting sub-boxes. Amended claim 8 recites a similar process. Support for these amendments can be found in the specification at, for example, ¶¶ [0550]-[0560]. This spatial indexing technique enables the present invention to calculate spatial indexing on the fly, rather than storing spatial indexing in the database that holds the geographic-based data (*see, e.g.*, ¶ [0548] of the specification).

In contrast to the spatial indexing feature of the present invention, Roy discloses a general “spatial technique” of choosing multiple objects on a map by enclosing them within a polygon. (*See, e.g.*, column 3, lines 46-51, column 7, lines 49-50, and column 12, lines 63-65.) Roy does not, however, teach or suggest the bounding of a drawn area, the subdividing of the area, and the identifying of inside and intersecting sub-boxes, as recited in amended claim 1 and similarly in amended claim 8.

Einkauf also fails to teach or suggest the recited spatial indexing feature. Einkauf is directed to subdividing polygons into smaller polygons to limit artifact creation during *rendering/texture map processes*. Einkauf is therefore focused on graphically rendering perspective texture map images and does not concern the spatial indexing of polygons for the purpose of determining corresponding latitude and longitude coordinates. In particular, Einkauf does not bound a drawn area and identify inside, outside, and intersecting sub-boxes (or pixels). Instead, Einkauf subdivides polygons of a display until all polygons have perspective ratios that are less than a pre-selected limit, at which time the object data can be displayed. Because Einkauf is concerned with eliminating artifacts in a map image, the process of Einkauf is entirely devoid of the latitude/longitude spatial indexing feature recited in amended claims 1 and 8. Indeed, because Einkauf merely displays map images, and makes no correlations to geographic-based data, Einkauf has no need for spatial indexing.

Applicants therefore respectfully submit that amended claims 1 and 8 are patentable over Roy, Einkauf, and the other prior art of record. Applicants have also amended dependent claims 3, 5, and 10-12 to conform to amended independent claims 1 and 8. Applicants respectfully submit that dependent claims 2-7 and 10-12 are also patentable due at least to their dependence on an allowable base claim.

Applicants have also as added new claims 15-21 to recite further aspects of the spatial indexing feature. New claims 15, 16, 18, and 19 recite recombining identified inside sub-boxes (or pixels) and remaining intersecting sub-boxes (or pixels), as is described at, for example, ¶¶ [0552]-[0557] of the specification. New claim 17 recites filtering properties within intersecting

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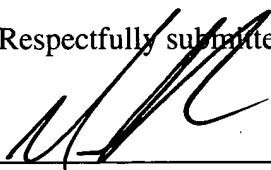
sub-boxes using a point-in-polygon algorithm, as is described at, for example, ¶ [0560] of the specification. New claim 20 recites the spatial index as comprising an XML document, as is described at, for example, ¶¶ [0550] and [0559] of the specification. New claim 21 recites ignoring the outside pixels as part of calculating the spatial index, as is described at, for example, ¶ [0551] of the specification. Applicants respectfully submit that these new claims 15-21 are also patentable over the prior art of record, at least due to their dependence on an allowable base claim.

In view of the foregoing, all of the claims in this case are believed to be in condition for allowance. Should the Examiner have any questions or determine that any further action is desirable to place this application in even better condition for issue, the Examiner is encouraged to telephone Applicants' undersigned representative at the number listed below.

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Respectfully submitted,

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